

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (canceled)
2. (currently amended) The method of claim [+] 4, wherein the payment authentication information is generated based on the confidential payment information and the transaction information.
3. (currently amended) The method of claim [+] 4, wherein the payment authentication information comprises a digital signature determined based on a secret key of the customer.
4. (currently amended) A method for securing payment over a network from a customer to a merchant, performed by a trusted party component, the method comprising:
receiving a request from the customer to pay the merchant, the request including a transaction information;
obtaining confidential payment information of the customer;
generating payment authentication information based on the confidential payment information; and
facilitating payment to the merchant without disclosing the confidential payment information of the customer to the merchant by transmitting instructions to pay the merchant on behalf of the customer and the payment authentication information to a payment component; The method of claim 1,

wherein the trusted party component is a computer program signed by a trusted third party, spawned by a first computer of the merchant, and executed on a second computer of the customer.

5. (currently amended) A method for securing payment over a network from a customer to a merchant, performed by a trusted party component, the method comprising:
receiving a request from the customer to pay the merchant, the request including a transaction information;
obtaining confidential payment information of the customer;
generating payment authentication information based on the confidential payment information; and
facilitating payment to the merchant without disclosing the confidential payment information of the customer to the merchant by transmitting instructions to pay the merchant on behalf of the customer and the payment authentication information to a payment component;
~~The method of claim 1,~~

wherein the trusted party component is a computer program signed by a trusted third party, installed in a first computer of the customer, and invoked by a second computer of the merchant.

6. (canceled)

7. (currently Amended) A method for securing payment over a network from a customer to a merchant, performed by a trusted party component, the method comprising:

receiving a request from the customer to pay the merchant, the request including a transaction information;

obtaining confidential payment information of the customer;

generating payment authentication information based on the confidential payment information; and

facilitating payment to the merchant without disclosing the confidential payment information of the customer to the merchant by transmitting instructions to pay the merchant on behalf of the customer and the payment authentication information to a payment component; The method of claim 1,

wherein the trusted party component is a computer program spawned by or downloaded from a first computer of a trusted third party and executed on a second computer of the customer.

8. (currently amended) The method of claim [4] 4, further comprising:

verifying, by the payment component, the payment authentication information.

9. (original) The method of claim 8, further comprising:

paying the merchant, if the payment authentication information is verified.

10. (original) The method of claim 9, wherein the transaction information includes a transaction amount and paying comprises instructing at least one financial institution to pay the merchant at least part of the transaction price.

11. (currently amended) The method of claim [1] 4, further comprising:
notifying the customer that the merchant has been paid.
12. (currently amended) The method of claim [1] 4, further comprising:
providing the merchant with a transaction history report including the payment authentication information.
13. (currently amended) The method of claim [1] 4, wherein the transaction information includes a transaction amount and the method further comprises:
requesting pre-authorization for the transaction amount from at least one financial institution; and
transmitting the pre-authorization to the payment component with the instructions to pay the merchant on behalf of the customer and the payment authentication information.
14. (currently amended) The method of claim [1] 4, further comprising: authenticating the confidential payment information as associated with the customer; and storing the confidential payment information in a database accessible to the payment component.
15. (original) The method of claim 14, the method further comprising:
obtaining the confidential payment information from the database; and
verifying, by the payment component, the payment authentication information and the confidential payment information.

16. (original) The method of claim 15, further comprising:
paying the merchant, if the payment authentication information and the confidential payment are verified.
17. (original) A method for securing payment from a customer to a merchant over a network, performed by a first trusted party component, the method comprising:
receiving a request from the customer to pay the merchant;
obtaining confidential payment information associated with the customer;
generating payment authentication information based on the confidential payment information;
transmitting the payment authentication information to the merchant;
receiving from the merchant the payment authentication information with a merchant signature;
verifying the merchant signature and the payment authentication information; and
paying the merchant on behalf of the customer.
18. (original) The method of claim 17, wherein the payment authentication information is generated based on the confidential payment information and transaction information
19. (original) The method of claim 17, wherein the payment authentication information comprises a digital signature of the confidential payment information and transaction information.

20. (original) The method of claim 19, wherein the payment authentication information with merchant signature is received by a second trusted party component and the second trusted party component verifies the merchant signature and the payment authentication information.

21. (original) The method of claim 20, further comprising: paying the merchant, by the second trusted party component, on behalf of the customer.

22. (original) The method of claim 20, further comprising:
generating, by the first trusted component, an encryption of the confidential payment information and transaction information;
transmitting the encryption to the second trusted party component, who uses the encryption to verify the merchant signature and the payment authentication information.

23. (original) The method of claim 22, wherein transmitting the encryption to the second trusted party component is performed by saving the encryption in a database accessible to the first trusted party component and the second trusted party component.

24. (original) A method for securing payment from a customer to a merchant over a network, performed by a trusted party component, the method comprising:
receiving an instruction from the customer to pay the merchant with a merchant signature;
obtaining confidential payment information of the customer;
verifying the merchant signature; and,

paying the merchant based on the confidential payment information, if the merchant signature is verified.

25. (original) The method of claim 24, further comprising:
generating payment authentication information based on the confidential payment information and transaction information; and
transmitting the payment authentication information with a third-party signature to the merchant.

26. (original) The method of claim 25, wherein paying the merchant comprises transferring funds from an account related to the customer to an account related to the merchant.

27. (canceled)

28. (currently amended) The medium of claim [27] 30, wherein the payment authentication information is generated based on the confidential payment information and the transaction information.

29. (currently amended) The medium of claim [27] 30, wherein the payment authentication information comprises a digital signature determined based on a secret key of the customer.

30. (currently amended) A computer-readable medium containing instructions for causing a computer to perform a method for securing payment over a network from a customer to a merchant, the method comprising:

receiving a request from the customer to pay the merchant, the request including a transaction information;

obtaining confidential payment information of the customer;

generating payment authentication information based on the confidential payment information; and

facilitating payment to the merchant without disclosing the confidential payment information of the customer to the merchant by transmitting instructions to pay the merchant on behalf of the customer and the payment authentication information to a payment component; The medium of claim 27,

wherein the trusted party component is a computer program signed by a trusted third party, spawned by a first computer of the merchant, and executed on a second computer of the customer.

31. (currently amended) A computer-readable medium containing instructions for causing a computer to perform a method for securing payment over a network from a customer to a merchant, the method comprising:

receiving a request from the customer to pay the merchant, the request including a transaction information;

obtaining confidential payment information of the customer;

generating payment authentication information based on the confidential payment information; and

facilitating payment to the merchant without disclosing the confidential payment information of the customer to the merchant by transmitting instructions to pay the merchant on

behalf of the customer and the payment authentication information to a payment component; The medium of claim 27;

wherein the trusted party component is a computer program signed by a trusted third party, installed in a first computer of the customer, and invoked by a second computer of the merchant.

32. (canceled)

33. (currently amended) A computer-readable medium containing instructions for causing a computer to perform a method for securing payment over a network from a customer to a merchant, the method comprising:

receiving a request from the customer to pay the merchant, the request including a transaction information;

obtaining confidential payment information of the customer;

generating payment authentication information based on the confidential payment information; and

facilitating payment to the merchant without disclosing the confidential payment information of the customer to the merchant by transmitting instructions to pay the merchant on behalf of the customer and the payment authentication information to a payment component; The medium of claim 27;

wherein the trusted party component is a computer program spawned by or downloaded from a first computer of a trusted third party and executed on a second computer of the customer.

34. (currently amended) The medium of claim [27] 30, further comprising: verifying, by the payment component, the payment authentication information.

35. (currently amended) The medium of claim [27] 30, further comprising: paying the merchant, if the payment authentication information is verified.

36. (currently amended) The medium of claim [27] 30, wherein the transaction information includes a transaction amount and paying comprises instructing at least one financial institution to pay the merchant at least part of the transaction price.

37. (currently amended) The medium of claim [27] 30, further comprising: notifying the customer that the merchant has been paid.

38. (currently amended) The medium of claim [27] 30, further comprising: providing the merchant with a transaction history report including the payment authentication information.

39. (currently amended) The medium of claim [27] 30, wherein the transaction information includes a transaction amount and the method further comprises: requesting pre-authorization for the transaction amount from at least one financial institution; and transmitting the pre-authorization to the payment component with the instructions to pay the merchant on behalf of the customer and the payment authentication information.

40. (currently amended) The medium of claim [27] 30, further comprising:
authenticating the confidential payment information as associated with the customer; and
storing the confidential payment information in a database accessible to the payment component.

41. (original) The medium of claim 40, the method further comprising:
obtaining the confidential payment information from the database; and
verifying, by the payment component, the payment authentication information and the
confidential payment information.

42. (original) The medium of claim 41, further comprising: paying the merchant, if the
payment authentication information and the confidential payment are verified.

43. (original) A computer-readable medium containing instructions for causing a computer to
perform a method for securing payment over a network from a customer to a merchant, the
method comprising:
receiving a request from the customer to pay the merchant;
obtaining confidential payment information associated with the customer;
generating payment authentication information based on the confidential payment
information;
transmitting the payment authentication information to the merchant;
receiving from the merchant the payment authentication information with a merchant
signature;

verifying the merchant signature and the payment authentication information; and
paying the merchant on behalf of the customer.

44. (original) The medium of claim 43, wherein the payment authentication information is generated based on the confidential payment information and transaction information

45. (original) The medium of claim 43, wherein the payment authentication information comprises a digital signature of the confidential payment information and transaction information.

46. (original) The medium of claim 43, wherein the payment authentication information with merchant signature is received by a second trusted party component and the second trusted party component verifies the merchant signature and the payment authentication information.

47. (original) The medium of claim 46, further comprising:
paying the merchant, by the second trusted party component, on behalf of the customer.

48. (original) The medium of claim 46, the method further comprising:
generating, by the first trusted component, an encryption of the confidential payment information and transaction information;
transmitting the encryption to the second trusted party component, who uses the encryption to verify the merchant signature and the payment authentication information.

49. (original) The medium of claim 47, wherein transmitting the encryption to the second trusted party component is performed by saving the encryption in a database accessible to the first trusted party component and the second trusted party component.

50. (original) A computer-readable medium containing instructions for causing a computer to perform a method for securing payment over a network from a customer to a merchant, the method comprising:

receiving an instruction from the customer to pay the merchant with a merchant signature;

obtaining confidential payment information of the customer;

verifying the merchant signature; and,

paying the merchant based on the confidential payment information, if the merchant signature is verified.

51. (original) The medium of claim 50, the method further comprising:

generating payment authentication information based on the confidential payment information and transaction information; and

transmitting the payment authentication information with a third-party signature to the merchant.

52. (original) The medium of claim 50, wherein paying the merchant comprises transferring funds from an account related to the customer to an account related to the merchant.

53. (currently amended) A apparatus for securing payment over a network from a customer to a merchant, the apparatus comprising:

 a processing unit;

 an input/output device coupled to the processing unit;

 a storage device in communication with the processing unit, the storage device including, program code for receiving an instruction from the customer to pay the merchant and a merchant signature, the instruction including confidential payment information of the customer; program code for generating payment authentication information based on the confidential payment information if the merchant signature is verified; and program code for paying the merchant on behalf of the customer according to the payment authentication information, wherein the confidential payment information of the customer is not disclosed to the merchant.

54. (original) The apparatus of claim 53, wherein the payment authentication information comprises a digital signature determined based on a secret key of the customer.

55. (original) The apparatus of claim 53, the storage device further comprising: stored confidential payment information.

56. (currently amended) A system comprising:
 a trusted component capable of
 receiving an instruction from a customer to pay a merchant with a merchant signature;

obtaining confidential payment information associated with the customer,
generating payment authentication information based on the confidential payment
information, and
transmitting the payment authentication information to a payment processor; and
the payment processor capable of
verifying the payment authentication information and the merchant signature; and
paying the merchant on behalf of the customer according to the payment
authentication information if the merchant signature is verified, wherein the confidential
payment information of the customer is not disclosed to the merchant.

57. (original) The system of claim 56, wherein the payment authentication
information comprises a digital signature determined based on a secret key of the
customer.

58. (original) The system of claim 56, further comprising: a shared database
operatively connected to the trusted component and the payment processor, and wherein
the verifying is performed based on a secret key of the customer stored in the shared
database.

59. (original) The system of claim 56, further comprising: a payment component
operatively connected to the trusted component and capable of preauthorizing the
confidential payment information.

60. (original) The system of claim 59, wherein the trusted component transmits the

payment authentication information to the payment processor with a preauthorization from the payment component.

61. (original) The system of claim 60, wherein the payment component is operatively connected to the trusted component and the transaction processor and the transaction processor is further capable of authorizing payment to the merchant based on a preauthorization from the payment component.